11. AN ARTIFICIAL DIET FOR THE REARING OF ACARID MITE

Some acarid mites are well known as important pests of stored agricultural products. While studying the biology of some acarid mites, difficulty was experienced in finding a suitable medium for rearing them on a large scale for experimental purposes. The assessment of the nutritional requirements of the mites would also be simplified if a suitable diet was available.

Preliminary studies were made by Kanungo & Behura (1958) on the effect of synthetic food on *Caloglyphus* sp. Recently two species of acarid mites were reared on an artificial diet by Bot & Meyer (1967). Another artificial medium, originally developed by Mykola H. Haydak (1936) for rearing of some laboratory insects, was also found highly suitable for rearing of *Tyrophagus* sp. by us.

The composition of the diet is as follows :

I.

Corn flour	..	4 parts by weight
Whole wheat flour	..	2 parts by weight
Skim milk powder	..	2 parts by weight
Dried powder yeast	..	1 part by weight
Wheat bran	..	2 parts by weight

These ingredients are mixed thoroughly.

II. Equal parts of honey and glycerine are mixed by volume.

Then equal parts of I and II are mixed by weight and the mixture is allowed to stand for about 24 hours for penetration of the liquid into the dry components of the food.

The diet infested with insects and kept for more than one month, was found to be better than the freshly prepared one for the mite growth probably due to the fungal growth in the diet. The mites reared on this diet were found to complete their life-cycle within 8-11 days at 25 ± 1°C and 80% R.H. and their multiplication was very rapid under these conditions.

ACKNOWLEDGEMENT

We are grateful to Dr. N. Dutta, Head of the Department of Entomology, Kalyani University for providing facilities.

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February 17, 1971.

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